

Amendments to the Claims

11. (New) Receiver designed for acting in concert with one or several receiving antennae for interference suppression for TDMA and/or FDMA transmission comprising at least pulse amplitude modulation or binary CPM, Continuous Phase Modulation, comprising:

- at least a filtering device including complex-valued coefficients  $f_i(k)$ , with the at least one filtering device being designed for filtering at least one complex-valued received signal  $r_i(k)$  of a receiving antennae for generating at least one output signal  $y_i(k)$ ;

wherein

the receiver further comprises

- at least one projection device to which the at least one output signal  $y_i(k)$  is coupled for forming a projection  $P_i$  of the at least one output signal  $y_i(k)$  onto a direction vector  $p_i$  assigned to this output signal  $y_i(k)$ , with the dimension of the direction vector  $p_i$  irrespective of the number of receiving antennae being two; and

in case the number of the projections  $P_i$  is one:

- a device for detection to which the output signal of the projection  $P_i$  is coupled;

or

in case the number of the projections is two or more:

- a device for summing a majority of the projections  $P_i$  for forming a sum signal  $s(k)$ ; and
- a device for detection to which the sum signal  $s[k]$  is coupled.